

ABSTRACT OF THE DISCLOSURE

A displacement gauge comprises an objective lens 15 that
5 projects light onto a measurement subject 16, an exciting
portion that vibrates the objective lens 15 at a preset
amplitude along an optical axis direction of light passing
through the objective lens 15, a position detector for detecting
the position of the objective lens 15, an objective lens scan
10 portion 52 for scanning the objective lens 15 along a plane
orthogonal to the optical axis direction, an objective lens
movement detecting portion 53 for detecting the moved position
of the objective lens 15, an operation processing portion 58 for
calculating a distribution of displacement amount within a
15 measuring area, based on the positional information of the
objective lens 15 within the measuring area detected by the
objective lens movement detecting portion 53, and the
displacement amounts measured at plural measuring points, and an
output portion 66 for outputting the result of calculation by
20 the operation processing portion 58.